What is claimed:

1. An angular position sensor for determining the angular orientation of a shaft rotatable with respect to a stationary body, said angular position sensor comprising:

a rotor having a bore sized to receive said shaft,

said rotor having a circumference,

at least one magnetic member on said rotor,

said at least one magnetic member having a magnetic pole at a first position on said circumference of said rotor,

a housing surrounding a portion of said rotor,

means for maintaining said housing stationary against rotation with said shaft, and

detection means on said housing adjacent said circumference of said rotor for detecting the magnetic polarity of a portion of said rotor nearest said detection means.

2. An angular position sensor in accordance with claim 1 wherein said at least one magnet member on said rotor has a second magnetic pole at a second position on said circumference of said rotor that is 180 degrees from said magnetic pole.

3. An angular position sensor in accordance with claim 1 wherein said at least one magnetic member is an annular member with a central opening concentric with a central opening in said rotor.

4. An angular position sensor in accordance with claim 1 and further comprising means responsive to said detection means for generating a wave indicative of said magnetic polarity detected by said detection means, whereby said wave is indicative of the angular orientation of said shaft with respect to said stationary body.

5. An angular position sensor in accordance with claim 4 and further comprising an analogue to digital converter for converting said wave to a digital output.

6. An angular position sensor in accordance with claim 1 and further comprising a second detection means on said housing angularly spaced from said detection means, said angular spacing is other than 180 degrees from said detector means wherein a direction of rotation may be determined.